

AMENDMENTS TO THE SPECIFICATION

Paragraph at page 2, lines 1-13:

Furthermore, a dielectric ceramic composition and a laminated ceramic capacitor are proposed in Patent Document 4. The dielectric ceramic composition principally contains barium titanate and accessorially contains the following elements: Re (Re represents at least one rare-earth element selected from Y, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, and Yb), Ca, Mg, and Si. The chemical composition formula of the dielectric ceramic composition is represented by $100\text{Ba}_m\text{TiO}_3 + a\text{ReO}_{3/2} + b\text{CaO} + c\text{MgO} + d\text{SiO}_2$ (wherein the coefficients of 100, a, b, c, and d represent molar ~~ratios~~ amounts), wherein the coefficients 100, a, b, c, and d satisfy the respective relationships: $0.990 \leq m \leq 1.030$, $0.5 \leq a \leq 6.0$, $0.10 \leq b \leq 5.00$, $0.010 \leq c \leq 1.000$, and $0.05 \leq d \leq 2.00$, respectively.

Paragraph at page 2, line 2 from the end to page 3, line 13:

In recent years, in the development of electronic technology, rapid progress has been made in the miniaturization of electronic components, and trends toward miniaturization and higher capacities of laminated ceramic capacitors have become significant. However, conventional dielectric ceramic compositions are designed on the premise that the compositions are used under low field strength. As a result, the use of a thin layer of ~~the dielectric ceramic composition, i.e., the use of~~ the dielectric ceramic composition under high field strength has disadvantages of significant reductions in insulation resistance, dielectric strength, and reliability. Therefore, when the thickness of a ceramic dielectric layer is reduced in the conventional dielectric ceramic composition, it is necessary to reduce the rated voltage depending on the thickness.

Paragraph at page 6, lines 14-28:

Each of the dielectric ceramic layers 2 is composed of a dielectric ceramic composition according to this embodiment. This dielectric ceramic composition is a composite oxide represented by the following chemical composition formula: $100(\text{Ba}_{1-x}\text{Ca}_x)_m\text{TiO}_3 + a\text{MnO} + b\text{CuO} + c\text{SiO}_2 + d\text{Re}_2\text{O}_3$. The coefficients, i.e., 100, a, b, c, and d, of the components of the dielectric ceramic composition each represent a molar amount ~~ratio~~. Re represents at least one rare-earth element selected from V, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, and Yb. Furthermore, m, x, a, b, c, and d in the chemical composition formula satisfy the respective relationships: $0.990 \leq m \leq 1.030$, $0.04 \leq x \leq 0.20$, $0.01 \leq a \leq 5$, $0.05 \leq b \leq 5$, $0.2 \leq c \leq 8$, and $0.05 \leq d \leq 2.5$.

Paragraphs from page 7, line 14 to page 8, line 14:

A molar ~~ratio~~-amount a of MnO less than 0.01 relative to 100 of $(\text{Ba}_{1-x}\text{Ca}_x)_m\text{TiO}_3$ is not preferable because the resistivity is lower than $10^{11} \Omega\text{m}$. A molar ~~ratio~~-amount a exceeding 5 is also not preferable because the rate of change of the dielectric constant with respect to temperature is disadvantageously outside the range of $\pm 10\%$, and the resistivity is lower than $10^{11} \Omega\text{m}$.

A molar ~~ratio~~-amount b of CuO less than 0.05 is not preferable because the mean failure time is shorter than 100 hours. A molar ~~ratio~~-amount b exceeding 5 is also not preferable because the rate of change of the dielectric constant with respect to temperature is disadvantageously outside the range of $\pm 10\%$.

A molar ~~ratio~~-amount c of SiO_2 less than 0.2 is not preferable because the dielectric constant is lower than 3,000, the dielectric loss $\tan \delta$ is higher than 5%, the rate of change of the dielectric constant with respect to temperature is disadvantageously outside the range of $\pm 10\%$, and the mean failure time is shorter than 100 hours. A molar

~~ratio-amount~~ c exceeding 8 is also not preferable because the rate of change of the dielectric constant with respect to temperature is disadvantageously 10% or more, and the mean failure time is shorter than 100 hours.

A molar ~~ratio-amount~~ d of Re_2O_3 less than 0.05 is not preferable because the mean failure time is shorter than 100 hours. A molar ~~ratio~~ amount d exceeding 2.5 is also not preferable because the rate of change of the dielectric constant with respect to temperature is disadvantageously outside the range of $\pm 10\%$. When a plurality of types of rare-earth elements Re are contained, the total of molar ~~ratios~~ amounts of the plurality of types of the rare-earth elements Re is defined as d.

Paragraph at page 19, lines 16-24:

Furthermore, as is clear from the case of sample Nos. 66 to 69, when the amount d, which was the total of the molar ~~ratios~~ amounts of the oxides of two rare-earth elements, was within the range of $0.05 \leq d \leq 2.5$ relative to 100 of $(\text{Ba,Ca})\text{TiO}_3$, it was possible to obtain a laminated ceramic capacitor having satisfactory electrical characteristics in the same way as for sample Nos. 13 to 65, even when the thickness of the dielectric ceramic layer was reduced to about $1 \mu\text{m}$.

Paragraphs from page 20, line 5 from the bottom to page 22, line 6:

In the case of sample No. 5 in which the molar ~~ratio~~ amount a of MnO was less than 0.01 relative to 100 of $(\text{Ba}_{1-x}\text{Ca}_x)_m\text{TiO}_3$, the resistivity was lower than $10^{11} \Omega\text{m}$, and the mean failure time could not be measured, which was terrible. In the case of sample No. 6 in which the molar ~~ratio~~ amount a exceeded 5, the rate of change of the dielectric constant with respect to temperature was -12.1% , which was worse than

$\pm 10\%$, the resistivity was lower than $10^{11} \Omega\text{m}$, and the mean failure time was 20 hours, which was very short.

In the case of sample No. 7 in which the molar ~~ratio~~ amount b of CuO was less than 0.05, the mean failure time was 10 hours, which was very short. In the case of sample No. 8 in which the molar ~~ratio~~ amount b exceeded 5, the rate of change of the dielectric constant with respect to temperature was -12.3% , which was worse than $\pm 10\%$.

In the case of sample No. 9 in which the molar ~~ratio~~ amount c of SiO_2 was less than 0.2, the dielectric constant was 2,400, which was low, the dielectric loss $\tan \delta$ was greater than 7.8% , the rate of change of the dielectric constant with respect to temperature was -12.5% , which was poor, and the mean failure time was 15 hours, which was very short. In the case of sample No. 10 in which the molar ~~ratio~~ amount c exceeded 8, the rate of change of the dielectric constant with respect to temperature was -11.8% , which was poor, and the mean failure time was 40 hours, which was short.

In the case of sample No. 11 in which the molar ~~ratio~~ amount d of Re_2O_3 was less than 0.05, the mean failure time was 5 hours, which was very short. In the case of sample No. 12 in which the molar ~~ratio~~ amount d exceeded 2.5, the rate of change of the dielectric constant with respect to temperature was -11.2% , which was poor.

The present invention is not limited to the above-described examples. It is understood that various changes may be made without departing from the spirit of the invention. For example, at least one rare-earth element selected among a plurality of types of rare-earth elements is used. When a plurality of types of rare-earth elements

are used, the total amount d of the molar ~~ratios~~ amounts of oxides of the plurality of types of the rare-earth elements should satisfy the relationship: $0.05 \leq d \leq 2.5$.